

DP-309771

FRAME-BASED BLADDER APPARATUS  
FOR SEAT OCCUPANT WEIGHT ESTIMATION

Abstract of the Disclosure

A frame-based occupant weight estimation apparatus for a vehicle seat that is supported by two or more floor brackets secured to the vehicle floor spans an open space between the floor brackets to prevent shunting of the occupant weight through a foreign object lying on the floor between the floor brackets. The weight estimation apparatus includes a fluid filled bladder sandwiched between first and second rigid plates, and is held in place between the seat frame and the floor brackets by a set of fasteners. A spring preloads the bladder so that deviations of the bladder fluid pressure from the preload pressure will be indicative of occupant weight. The first plate spans the open space between the floor brackets so that the fluid pressure is indicative of occupant weight even in cases where a portion of the occupant weight is supported by a foreign object disposed between the floor brackets.